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CMOS CURRENT MODE RF DETECTOR AND METHOD

Abstract of the Disclosure

An integrated detector circuit (20) includes first and second gain stages (GS₁, GS₂). The first gain stage has an input (82) that monitors a high frequency signal (V_{RFDET}) for routing a first detection current (IS₁) to a node (60). The second gain stage includes a first current source (PF₁) that supplies a bias current (I_{MAXI}) indicative of a predefined amplitude of the high frequency signal. An input of the second gain stage monitors the high frequency signal to route a portion of the bias current to the node as a second detection current (IS₂), which is limited to the bias current when the high frequency signal is greater than the predefined amplitude to compensate for a nonlinearity in a transconductance of the second gain stage.